

DIGImini

Digital multi-band mini repeater

Key features:

- Innovative digital mini repeater at price of legacy analogue mini repeater
- Up to four frequency bands in two compact enclosures
- Software Defined Filtering of up to 8 sub-bands for channel- and band selective mode
- Specific preconfigured filter sets for 2G, 3G and 4G
- Dual band units available for 800/1800MHz, 900/2100 MHz , 900/1800MHz, 1800/2100MHz and 1800/2600 MHz
- Individual gain and ALC settings for each sub-band for single and multi-operator applications
- Supports dual band MIMO

Axell Wireless' new DIGImini repeater (digital mini repeater) is an innovative flexible multiband coverage solution optimized for in-building applications.

Axell Wireless' DIGImini offers a completely new range of possibilities. With multi technology (i.e. GSM/LTE) applications, multiple filters are required in the operation bands. The DIGImini is designed to provide high performance digital filters with a competitive price to legacy analogue mini repeaters.

Up to four different frequency bands or dual band MIMO can be implemented with 2 dual band DIGImini repeaters. Each DIGImini repeater can be a dual band 800/1800MHz,

900/2100MHz, 900/1800MHz, 1800/2100MHz or 1800/2600 MHz. The mounting brackets are prepared to hold 2 DIGImini repeaters and to create one repeater supporting 4 bands or 2 bands MIMO.

Easy "plug and play" allows our customers to add services as needed, thus minimizing their CAPEX. Software Defined Filtering of up to 8 sub-bands in each dual band configuration and up to 16 sub-bands for quad band configuration.

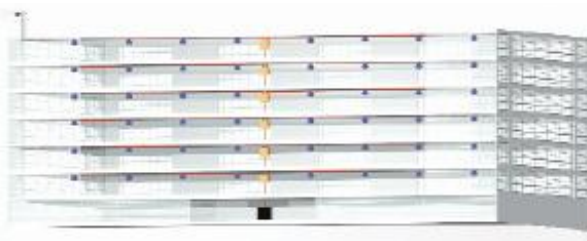
Individual Gain and ALC settings for each sub-band for multi-technology applications (e.g. GSM/WCDMA/LTE) for single and multi-operator applications. A state-of-the-art Interference



Mitigation and Oscillation Prevention (IMOP) is used to measure the isolation between the antennas and gain is reduced immediately to prevent oscillation.

The DIGImini is connected to one donor antenna placed on the roof of the building and the radiating coaxial cable or antennas in the area to be covered. Configuration and monitoring of the DIGImini can be done through an intuitive web management GUI. Remote management is done via wireless modem.

With the Axell Wireless advanced supervision and control software, the entire fleet of digital multi-band repeaters can be monitored.



Axell Wireless' DIGImini repeater is powerful enough to drive a passive Distributed Antenna system (DAS) for coverage areas up to 2500m² in buildings, parking lots, malls, warehouses and offices.

Technical specifications

RF specification UL/DL	800MHz	900MHz	1800MHz	2100MHz	2600MHz
Operating frequency range Uplink/Downlink	832-862MHz 791-821 MHz	880-915MHz 925-960MHz	1710-1785MHz 1805-1880MHz	1920-1980MHz 2110-2170MHz	2500-2570MHz 2620-2690MHz
Output power at antenna port (composite) ¹	20dBm	20dBm	20dBm	20dBm	20dBm
Pass band maximum gain ¹	73dB	73dB	73dB	73dB	73dB
Gain attenuation range	0-25dBm (in 1dB steps)	0-25dBm (in 1dB steps)	0-25dBm (in 1dB steps)	0-25dBm (in 1dB steps)	0-25dBm (in 1dB steps)
Pass band ripple	± 2.5dB	± 2.5dB	± 2.5dB	± 2.5dB	± 2.5dB
Noise figure @ max gain ¹	6dB	6dB	6dB	6dB	6dB
Propagation delay	6 µsec	6 µsec	6 µsec	6 µsec	6 µsec
Number of filters per band ²	Up to 8	Up to 8	Up to 8	Up to 8	Up to 8
General RF specification					
Max. RF input power	+10 dBm				
Electrical specification					
Power supply / Power consumption	110/240 VAC / <70 Watt for dual band				
Environmental specification					
Operating temperature range	-10 to 50°C				
Humidity	85%, ETS 300 019-1-3 Class 3.1				
Mechanical specification					
Dimension / Weight	299 x 305 x 77 mm (b x h x d) / 4 kg for dual band				
Installation	wall mount				
Ingress protector	IP41				
Complies with	ETSI EN 301 502, (ETSI EN 300 609-4/GSM 11.26), ETSI EN 301 489 - 8, ETSI EN 301 489 - 23, ETSI TS 125 106, 3GPP TS 25 106				

¹For quad band the output power is 17dBm, the gain is 67dB and the noise figure is 8dB.

² Up to 16 for quad band; Supports every BW option 200kHz-25MHz by setting the start-stop frequency. Total number of filters is 8 and up to 100MHz accumulated bandwidth in each dual band unit (1 filter resource provides up to 11 MHz BW, 2 filter resources up to 25MHz BW)

Ordering information

Identification	Description	Number
DIGImini 800/1800	DIGImini 800/1800 20/20dBm	D-MINI-2008-2018
DIGImini 900/2100	DIGImini 900/2100 20/20dBm	D-MINI-2009-2021
DIGImini 1800/2600	DIGImini 1800/2600 20/20dBm	D-MINI-2018-2026
DIGImini 900/1800	DIGImini 900/1800 20/20dBm	D-MINI-2009-2018
DIGImini 1800/2100	DIGImini 1800/2100 20/20dBm	D-MINI-2018-2021
DIGImini GPRS Modem	External GPRS modem	DMCU
DIGImini WCDMA Modem	External WCDMA (Telit 864) modem	DMCU-WCDMA
DIGImini Accessory kit	DIGImini 4 bands accessory upgrade kit	D-MINI-4B-AK

About Axell Wireless

Axell Wireless is one of the top global providers of wireless coverage solutions and the market leader in the provision of solutions for the public safety market worldwide. Our equipment has been deployed in some of the most technologically challenging environments in the world, providing coverage for tunnels, metros, buildings, stadiums and transportation systems all over the world. With its headquarters in the UK, Axell Wireless has been operating for over 40 years and has an international footprint. A proven track record combined with a reputation for providing innovative and high-quality products has made Axell Wireless a truly global player in the wireless coverage industry.